Rice University
Civil and Environmental Engineering

CEVE 480 Senior Design
Spring 2013 Syllabus

Course Information

Welcome to the Spring Semester of Senior Design. This semester is a continuation of CEVE 481 and is intended to provide real world project experience. You will have real practitioners in class to discuss with you various perspectives. You will also hear from practicing engineers related to your role in the project.

Each of you have formed a team, sought a commission for a project and created a conceptual design of the project assigned. It is important that each one of you participate and play a significant role in your team's report and presentations. It is also important that each team does its part to execute the design of the project in coordination with the other team. There will be lectures, team meetings and design workshops as part of the class. Participation in all phases of senior design is required. .

This semester in CEVE 480, you will be asked to make two presentations in addition to the ones last semester. The first presentation will be a schematic design report in which you will present your project in a schematic format, discuss your coordination with other design teams and what still needs to be coordinated and designed, where you are on budget and schedule for the project, and any required additional services and special considerations needed to complete the project. The last presentation will be on the final report on your project. The other project teams will be allowed and encouraged to question your team regarding its presentation to obtain information they need and to question what was presented. A written report will also be required to document the body of work for your project. These presentations along with class participation, your written project report and your project poster will determine your grade in CEVE 480. There will be assignments to complete that must be turned in a project poster that is to be presented in the spring poster contest, a written report, and presentations as part of the work required in the class.

Written assignments shall be formatted and type written. Your name, the name of the assignment, and the date must be provided. If it is turned in on OWL Space, is should be in .pdf or MSWord / Excel format. All assignments and team meeting notes must be included in an appendix of the final report, organized as a reference to the report.

There is a proposed off-campus class meeting at Walter P. Moore and Associates, Inc. corporate headquarters to meet with their engineers for input on design and to answer questions you might have on your role in the project. You are strongly encouraged to visit your project site to observe the site conditions.

Your grades will be based on your class participation, completion and quality of your assignments, the effectiveness of your team, the quality of your work, the creativeness of your solutions and the quality of the presentations. **Class participation is the most important of all.** You are expected to participate in class discussions, ask questions about the other teams' projects and presentations, and spend quality team time during that portion of the class.

You are encouraged to find out as much as you can on your own before asking questions. Much of learning is in the pursuit of an answer. We both have another full time job, so have

patience if we can't get back to you quickly. You may email or phone us, but please be respectful of our time during the day. Feedback on the presentations and discussions is encouraged.

Grading

The following are the basis of grading:

- Teamwork 10%
- Assignments 10%
- Class Participation 20%
- SD Project Presentation 20%
- Final Design Presentation 20%
- Written Report 20%

In addition, there will be up to 5 extra credit points added to your final grade total for those who actively contribute to class discussions on a regular basis, ask quality questions of presenters, and provide extra effort on preparing assignments.

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Instructors

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Date 2012	Week No.	TOPIC Completion of assignments is important to your grade for the class. All assignments are to be emailed on Friday of the week assigned
Jan 10	1	**Discussion**: Review of presentations and expectations for Spring Semester. Project Management Review – Work plans & Team Meetings. **Assignment**: Develop a work plan with key issues and schedule.
Jan 17	2	***[Team Meeting]*** → ***Assignment Review***: Review key issues and discuss work plan. **Discussion** – Site plan design and City design criteria review. Review project site design as presented in the concept presentations. Discussion on RSA Design Method ***Workshop*** **:** Develop preliminary site plans **Assignment**: Develop site plan and building column layout plan for intended development
Jan 24	3	***[Team Meeting]*** → ***Assignment Review***: *Review Site Plans and building framing plans.* ***Discussion – Environmental Remediation*** *– Discussion on the remediation process as it relates to Brownfield development.* ***Workshop****: determine the impact of the Brownfield designation on the plan and schedule.* **Assignment**: Prepare remediation abstract
Jan 31 CMP out	4	***[Team Meeting]*** → ***Assignment Review***: Teams present their remediation plan to class for comment and discussion. **Assignment**: Revise remediation plan per comments during presentation. Document plan. Review floor plans and column layout in preparation for structural presentation.
Feb 7	5	***Team Meeting]*** → **Discussion:** Structural foundation and frame development ***Workshop:*** Work on structural component of project. ***Assignment*** – Prepare schematic design presentation
Feb 14	6	Schematic Design Presentation **Assignment:** USGBC sustainability research – Determine the applicable program and fill out the check list *(www.usgbc.org).***Assignment:** Complete LEED point write up
Feb 21	7	Schematic Design Presentation **Discussion:** LEED application to project design and specifications. ***Workshop***: Review overall projects ***No Assignment over break***
Feb 25-Mar 1		Spring Break
Mar 7	8	***Class held at Walter P Moore – 1301 McKinney, 11th Floor*** ***[Team Meeting]*** → ***Workshop:*** *Structural and civil design aid for project by WPM Staff* ***Assignment:*** Develop report outline
Mar 14	9	***[Team Meeting]*** → ***Discussion****:* Project Specifications, General Notes and Details**,** ***Assignment***: → Prepare preliminary plans and exhibit *drafts*
Mar 21	10	***[Team Meeting]*** ***Assignment Review:*** Review and discuss preliminary plans and exhibits ***Discussion****:* Project Specifications, General Notes and Details**,** ***Workshop*** *– Assistance on Final Report.* ***Assignment****: Prepare Final Presentation and final report draft for review*
Mar 28		Mid-term Break – no classes
Apr 4	11	Final Project Presentations: Panel of Reviewers
Apr 11	12	Final Project Presentations: Panel of Reviewers
April 18	13	*Final Reports due – no class*

Any student with a documented disability seeking academic adjustments or accommodations is requested to speak with us during the first two weeks of class. All such discussions will remain as confidential as possible. Students with disabilities will need to also contact Disability Support Services in the Ley Student Center.